Loureiro Engineering Associates, Inc.

June 27, 2002

United States Environmental Protection Agency
New England
One Congress Street
Suite 1100 (HBT)
Boston, MA 02114-2023

Attn.: Mr. Juan A. Perez
Ms. Kim Tisa

RE: Proposed Modification to Remedial Action Work Plan
Willow Brook and Willow Brook Pond

Dear Mr. Perez and Ms. Tisa:

We have prepared this letter on behalf of our client, United Technologies Corporation, Pratt & Whitney Division (UTC/P&W), to request the United States Environmental Protection Agency (US EPA) approval for a modification to the Remedial Action Work Plan (RAWP) for the above project. As previously discussed, we are proposing an alternative decontamination and sampling procedure specifically for the steel sheet piles used on the subject project. The general details associated with this request for modification are summarized herein, while the proposed modification procedures are presented in the attached addendum. Upon receipt of EPA approval, the addendum will be incorporated into the final RAWP.

Background Information

During the construction of the bypass channel for Willow Brook, approximately 207 steel sheet piles (35-foot long) were installed along the southern portion of the lower Willow Pond to form the northern embankment of the temporary bypass channel. Portions of these sheet piles were driven through contaminated soil and sediment in certain areas, which were then covered with clean sand to facilitate construction of the channel. The channel was then lined with welded high-density polyethylene liner material.

This bypass channel was used throughout the remedial excavation activities to divert water from the active working area of the pond and stream. Once the ponds and stream were completely remediated, flow from the bypass channel was redirected back through the mainstream (low-flow channel) of the ponds and brook, while the sheet piles were removed and soil remediation was completed along the south side of the sheet piles.

The sheet piles were provided by a subcontractor who was responsible for installation, removal and rental of the sheets. Upon removal, the sheets were rinsed, and then stocked on-site awaiting decontamination. Upon completion of the decontamination activities, the sheeting contractor will reuse the sheets on upcoming projects.

RAWP Decontamination Procedures

The approved RAWP states: "Equipment that has come into contact with contaminated soil and sediment will be cleaned with a pressure washer, scrub brushes and organic solvent using a double wash/rinse process in accordance with Subpart S of 40 CFR Part 761 over the decontamination pad."

Proposed Modification

Portions of the subject sheets were in contact with PCB contaminated sediment and soil within the pond, not free-phase product. Due to the number of sheets, the extreme length of the sheets (35-feet) and the cumbersome nature of each, the remedial contractor would rather use an environmentally preferable aqueous solvent in lieu of the organic solvent required in 40 CFR 761 Subpart S. Since the subject material was not in contact with free-phase product, the use of an aqueous based solvent in lieu of an organic solvent is reasonable, provided that confirmatory wipe sampling is performed to document the adequacy of the decontamination process.

Since the inherent use of sheet piles involves driving the sheets into the ground to retain soil, groundwater or surface waters, it is not unlikely that these sheets may come into contact with a drinking water source in the future. Due to the fact that these materials will be returned to a vendor for unrestricted reuse, we have opted to take a conservative approach by adopting an action level of 1 $\mu g/100\ cm^2$ in lieu of the 10 $\mu g/100\ cm^2$ defined in the measurement based decontamination procedures in 40 CFR 761.79(b). The proposed modified decontamination procedures and related action levels for the steel sheet pilings are presented in detail in the attached addendum.

We hope that the attached revised Decontamination Procedures for Sheet Piles and Sampling Procedures for Sheet Piles meets with your satisfaction. Should you have any further questions or comments, please do not hesitate to contact Lauren Levine of UTC at (860) 728-6520 or me.

Sincerely

LOUREIRO ENGINEERING ASSOCIATES, INC.

George F. Andrews Jr., P.E.
Project Manager

Attachment

cc: Lauren Levine, UTC
Richard Hathaway, DEP, w/o enclosure and attachments
Lori Saliby, DEP, w/o enclosure and attachments
Ernest Waterman, U.S. EPA, w/o enclosure and attachments

ADDENDUM TO

REMEDIAL ACTION WORK PLAN

United Technologies Corporation
Pratt & Whitney
Willow Brook and Willow Brook Pond
East Hartford, CT

November 2000
Revised January 2002

Addendum No. 1, June 27, 2002

Decontamination Procedures for Steel Sheet Piles
&
Sampling Procedures for Steel Sheet Piles

Decontamination Procedures for Sheet Piles

Decontamination of steel sheet piles that have been in contact with contaminated soil and sediment shall be accomplished by performing a double wash double rinse procedure as follows.

First wash. Cover the entire surface with concentrated or industrial strength detergent or non-ionic surfactant solution. Contain and collect all cleaning solutions for proper disposal. Scrub rough surfaces with a scrub brush or scrubbing pad, adding cleaning solution such that the surface is always very wet, such that each 1 square foot is washed for 1 minute. Mop up or absorb the residual cleaner solution and suds with an clean, disposable, absorbent pad until the surface appears dry.

First rinse. Rinse off the wash solution with 1 gallon of clean water per square foot and capture the rinse water. Mop up the wet surface with a clean, disposable, absorbent pad until the surface appears dry.

Second wash. Cover the entire surface with environmentally preferable aqueous solvent. Contain and collect any runoff solvent for disposal. Scrub rough surfaces with a scrub brush or disposable scrubbing pad and solvent such that each 1 square foot of the surface is always very wet for 1 minute. Wipe, mop, and/or sorb the solvent onto absorbent material until no visible traces of the solvent remain.

Second rinse. Wet the surface with clean rinse solvent such that the entire surface is very wet for 1 minute. Drain and contain the solvent from the surface. Wipe the residual solvent off the drained surface using a clean, disposable absorbent pad until no liquid is visible on the surface.

Decontamination wastewaters will be collected and treated prior to discharge to the sanitary/industrial sewer system.

Environmentally preferable aqueous solvent shall be selected from the US EPA Wall Chart titled: *Aqueous and Semi-Aqueous Solvent Chemicals: Environmentally Preferable Choices* (EPA-743-B-96-001, September 1996). The specific product selected and pretreatment facilities provided will meet the requirements imposed in the Emergency Authorization for Discharge issued by the State of Connecticut Department of Environmental Protection and coordinated through the Pratt & Whitney Colt Street Wastewater Treatment Facility.

Sampling Procedures for Sheet Piles

Upon completion of the decontamination procedures, the surfaces of the decontaminated sheet piles previously in contact with PCB contaminated soil/sediment will be sampled in accordance with 40 CFR 761.302 (Subpart P). The sheet piles are generally 35-feet in total length and about 3-feet wide. The lower 15-feet of each sheet was generally in contact with impacted soils. Sampling will be implemented on a one per 10 square meter basis. Based on the total number of sheets (207) and the impacted surface area of each individual sheet (<9 square meters including both sides) we estimate the total number of sample aliquots to be 207. We will composite these aliquots into three aliquot composites for a total of about 70 sample analyses. Sample locations will be determined by dividing the entire surface into approximately 1-meter squares, then using

a random number generator to select the specific locations for wipe sampling. This sampling density will represent approximately 11% of the 1-meter square areas.

Sampling will be performed in accordance with 40 CFR 761.123. Specifically, a 10 cm x 10 cm template will be used to delineate the area of cleanup. The wiping medium will be a gauze pad of known size, which has been saturated with hexane. Field blanks and replicates for QA/QC will be collected in accordance with the RAWP.

Samples will be analyzed at a fixed state certified laboratory using SW-846 Method 8082 and extraction method 3550. The laboratory detection limit will be 0.4 $\mu g/100\ cm^2$. Analytical data will be derived at a maximum of one analysis per three aliquots (3 point composites). Each sheet side will be marked with paint indicating a unique reference symbol to facilitate sample representation. The analytical data will be directly compared to the action level of $1\mu g/100\ cm^2$. Any sheets exhibiting PCB concentrations greater than 1 $\mu g/100\ cm^2$ will be decontaminated again and resampled.

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